Amendment

In the Claims

1. (currently amended) A resorbable interbody spinal fusion device for spinal fixation, said device comprising an interbody spinal fusion device comprising

(1) between 25 and 100% of a biocompatible, bioerodible polymer which produces acidic products or low molecular weight resorbable fragments upon hydrolytic degradation, wherein the polymer ~~comprises~~ includes a strengthening material selected from the group consisting of crosslinked monomers, reinforcing fibers, self-reinforcing aligned fibers of the polymer, degradable polymeric scaffolds, and interpenetrating networks,

(2) one or more void spaces, and

(3) a buffering or neutralizing agent,

wherein one or more of the void spaces comprises a grafting material for facilitating bony development or spinal fusion.

Claims 2-3. (canceled)

4. (previously presented) The resorbable interbody spinal fusion device of claim 1, wherein said grafting material is an autologous grafting material.

5. (original) The resorbable interbody spinal fusion device of claim 1, wherein said device is shaped substantially as a tapered wedge or cone.

6. (original) The resorbable interbody spinal fusion device of claim 1, wherein said device is shaped substantially as a threaded screw.

7. (original) The resorbable interbody spinal fusion device of claim 1, wherein said device is shaped substantially as a threaded rod of cruciform configuration.

8. (currently amended) The resorbable interbody spinal fusion device of claim 5, the device further comprising at least one serrated or threaded outer face.

Claims 9-10. (canceled)

11. (currently amended) The resorbable interbody spinal fusion device of claim 1, wherein said polymer or ~~reinforcing~~ strengthening material is selected from the group consisting of polydioxanone, poly(ε-caprolactone), polyanhydride, polyester, copoly(ether-ester), polyamide, polylactone, poly(propylene fumarate), and combinations thereof.

12. (currently amended) The resorbable interbody spinal fusion device of claim 11, wherein said bioerodible polymer ~~comprises~~ is poly(lactide-co-glycolide) with a lactide to glycolide ratio in the range of 0:100% to 100:0% inclusive.

13. (previously presented) The resorbable interbody spinal fusion device of claim 1, wherein said buffering or neutralizing agent is a polymer comprising at least one basic group.

14. (currently amended) The resorbable interbody spinal fusion device of claim 13, wherein ~~said polymer comprises at least one~~ the basic group is selected from the group consisting of polyamines, polyesters, vinyl polymers, and copolymers of acrylic acid.

15. (previously presented) The resorbable interbody spinal fusion device of claim 1, wherein said buffering or neutralizing agent is a compound that, on exposure to water, hydrolyzes to form a base.

16. (previously presented) The resorbable interbody spinal fusion device of claim 1, wherein said buffering or neutralizing agent is selected from the group consisting of carbonates, phosphates, acetates, succinates and citrates.

17. (currently amended) The resorbable interbody spinal fusion device of claim 1 wherein said ~~polymer further comprises~~ strengthening material comprises reinforcing fibers.

18. (currently amended) The resorbable interbody spinal fusion device of claim 17, wherein said reinforcing fibers are made of ~~said~~ a bioerodible polymer.

19. (canceled)

20. (previously presented) The resorbable interbody spinal fusion device of claim 17, wherein said reinforcing fibers are made of said buffering or neutralizing agent.

Claims 21 - 23. (canceled)

24. (previously presented) The resorbable interbody spinal fusion device of claim 1, wherein said buffering or neutralizing agent is selected from the group consisting of compounds wherein the pKa of the conjugate acids of said compounds is greater than the pKa of acids produced by hydrolysis of the polymer.

25. (previously presented) The resorbable interbody spinal fusion device of claim 1, wherein said device is fabricated from at least two bioerodible polymers.

26. (previously presented) The resorbable interbody spinal fusion device of claim 25, wherein one of said polymers is poly (propylene fumarate) which acts as a reinforcing material.

27. (previously presented) The resorbable interbody spinal fusion device of claim 25, wherein one of said polymers has been cross-linked in the presence of a crosslinking agent and an initiator, whereby said crosslinked polymer forms a reinforcing interpenetrating network.

28. (previously presented) The resorbable interbody spinal fusion device of claim 25, wherein one of said at least two polymers has been cross-linked in the presence of vinyl pyrrolidone as a crosslinking agent and an initiator.

29. (previously presented) The resorbable interbody spinal fusion device of claim 25, wherein one of said at least two polymers has been cross-linked in the presence of a crosslinking agent and benzoyl peroxide as an initiator.

30. (original) The resorbable interbody spinal fusion device of claim 1, wherein said device is fabricated from a polymer wherein molecular chains of said polymer have been aligned to be essentially parallel.

31. (original) The resorbable interbody spinal fusion device of claim 30, wherein said device has been cut such that the aligned polymer molecular chains are at approximately a 45° angle to a surface of said device.

32. (canceled)

33. (previously presented) The resorbable interbody spinal fusion device for spinal fixation of claim 1, wherein said buffering or neutralizing agent is hydroxyapatite.

34. (canceled)